

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. XCVIII. — THURSDAY, JANUARY 31, 1878. — NO. 5.

LECTURES.

BOSTON CITY HOSPITAL: SURGICAL CLINIC OF DAVID W. CHEEVER, M. D.,

Professor of Clinical Surgery in Harvard University.

GENTLEMEN, — This little boy was in the hospital last year, at which time you probably saw him. You will remember that his case was considered almost desperate. Amputation at the shoulder-joint seemed the only alternative, but there was no tissue for a flap, and moreover the boy was too weak to justify the operation. On his way to this country from England he was badly scalded. He was brought to this hospital for treatment. Various applications and procedures were tried upon him, but his arm eventually passed into a fungous condition; glycerine was then tried, with the object of drawing out the serum of the granulations. Finally we applied the ointment of the oxide of zinc until the burned surface closed over. The boy kept his bed for months with his arm upon a pillow, much of the time caring for it himself. On account of the great pain the dressing was not changed oftener than every other day. It was thought that if the part granulated well it might in time heal over, and with the hope of assisting the process we made use of skin grafting, trying especially to cover the point on the shoulder where the skin over the deltoid had been burned off. But we did not succeed. As you see, however, with the exception of this one point in the middle of the arm, at which there is a sore, the result of a fall, the arm is entirely healed and is a good and useful member. The burn covered the whole deltoid, going down to the elbow and nearly girdling the arm. Fortunately most of the contraction is on the posterior surface of the limb, over the triceps and latissimus dorsi muscles. If this amount of contraction were on the front of the arm and in the bend of the elbow or axilla, it would make the limb practically useless. There is now good motion and considerable power. You see the radiating character of the scars. They will gradually become white and puckered. In convalescence from burns the main trouble is the contraction and itching. You may observe that the upper line of the burn is so high as to be above the glenoid cavity, which, in case we had amputated at the shoulder, might have been exposed for months,

and perhaps would not have granulated over at all. We might have succeeded by amputating above the neck of the scapula, but, as before remarked, the boy had not the stamina to bear an operation. He has been nine months in the hospital, and is now an employee.

I show this case as an example of what nature can accomplish in a young subject. Bear in mind that youth is the age of *growth*. The individual not only maintains himself as he is, but all the tissues increase beside. In youth, therefore, repair is proportionately vigorous. Had this burn happened to a person of fifty or sixty years, it would, probably, never have closed.

Malignant Tumor of the Mouth. — I show you, as well as I am able, a growth in the mouth of this child.

The tumor is a large, purple, fungous mass on the left side of the mouth, projecting into the cheek, forcing the mouth open, and causing salivation. The entire growth is of only three weeks' duration. The child is thirteen months old, and the first dentition had commenced, but in proportion as the tumor developed from the jaw the teeth were forced out of their sockets. The only history we have is that of the rapid growth of this body, and I have brought the case before you as interesting merely in showing the surprising quickness of development. In another case I found a similar tumor near the breast bone, dark-colored, non-fluctuating, and growing fast. I cut into it, and only blood issued. It wore the child out, and he died. In a third case the tumor was located in the groin, and showed the same rapidity of development. It is the intense activity of the circulation in children which is the secret of the wonderfully swift enlargement of these tumors. We occasionally see similar excrescences spring out like mushrooms from the orbit of young children. This, like the others alluded to, is malignant and probably melanotic. Such a growth is almost purely cellular, with but little connective tissue. Treatment in such cases is practically useless.

Malignant Tumor of the Jaw. — This is a young, fresh-looking, comparatively healthy woman. She has had two children. Is suffering from a common complaint, the Boston catarrh. She comes to the hospital with pain in the upper jaw, in the antrum, and near the posterior nares. She has had all her upper teeth extracted, and has worn a false set for eighteen months. If she had her own teeth we should look for some neuralgic dental affection consequent on caries or alveolar abscess. The pain continued, and five weeks since I punctured the antrum, giving egress to serum and a little pus. The opening into the antrum is now nearly closed. What is the cause of this pain? That we shall hope to discover by exploration. Whether there be an abscess or a malignant growth, we do not yet know. There is a decided thickening of the soft palate, and considerable deformity of the face from expansion of the antrum. There is, too, a bloody discharge from the nose, unlike

that of ordinary catarrh. It is interesting to bear in mind that these affections of the antrum develop with rapidity. In the case of a young lady, recently under my treatment, a malignant growth involved the whole upper jaw of one side in six weeks' time. Here I hope to find caries or necrosis of the bone, yet there is a possibility of something worse. I shall perforate the antrum, using a very large trocar, but first incising the soft tissue of the gum with a knife. My trocar has entered the cavity, and a few flakes of pus come down. The instrument is able to move about freely. I show you the depth of the antrum by keeping a finger on the probe at the point of entrance. When thus measured the depth seems enormous. My probe now touches a soft wall. The same fluid which is flowing out of the opening flows also from the nose, showing that I have surely entered the antrum and stirred up its contents, which come down into the nose through the natural orifice. I now remove the canula, and with a burr drill, which is a most useful instrument in boring bone, I enlarge the opening. If it be still too small I shall break down the bone, so that I can pass in my finger and thus examine the contents of the cavity. The fluid which issues looks as if it might be either thick pus or broken-down cancer-cells. The opening is not large enough. Its edges cut the finger, and this destroys the sense of feeling. With mallet and chisel I cut out a bit of bone, and thus make a wider entrance. This fragment of bone is in such a softened, friable condition that it is the most suspicious thing I have yet seen in the case. We will preserve it for further examination. When we measured the cavity we thought the instrument passed in to a great depth. It now seems probable that the probe reaches the sphenoid behind the orbit, and thus accounts for the disappearance of so much of the instrument. The upper and posterior walls of the antrum seem pretty well absorbed. Now, introducing polypus forceps, I bring away several fragments of a soft, suspicious-looking growth, which will be kept for microscopic examination. Passing the finger in freely, I touch a soft, spongy mass which fills the top and back of the antrum. For various reasons we will do no more to-day. The patient is not prepared in her own mind. Besides, when the case is severe, I prefer not to operate upon a patient who has just come in from her own house after breakfast. Treatment under such conditions is often unsuccessful. At present I will only remove a little more of the growth, syringe out the cavity, and leave the patient until another opportunity. If the affection prove to be malignant, the only operation will be the excision of the whole upper jaw up to the orbit. Such an operation is oftener successful and with less deformity than one would imagine. You can see the result if the microscope shows that the trouble is malignant and if the patient permits us to operate. We already know that there is neither abscess, nor cyst, nor necrosis.

There is a soft growing mass involving the fifth pair of nerves, and probably malignant.

If we had no microscope, could we decide as to the real character of this case? We could, from the aid which the history of similar cases has given us; by elimination of other diseases, as caries, necrosis, abscess, or cyst; and also by the *gross* appearances of the growth.

Suppurating Bubo. — We have here a young man who has a large, soft, suppurating bubo, which followed two soft chancres of a fortnight ago. The swelling has evidently been very rapid. Something has been applied to the part, probably iodine, which has had the good effect of hurrying the development. The question is as to how we shall open the bubo. Shall the opening be large or small?

If the patient must work, it would be better to make a small opening and let him attend to the discharge himself. As he is to remain in the hospital, it will be better to make an incision one and a half inches long and turn the bubo into an ulcer, — which I have done. It is next to be poulticed, then packed to the bottom with charpie dipped in equal parts of tincture of myrrh and water.

Excision of the Upper Jaw. — The patient whom we examined by perforating the antrum now¹ comes for operation. The portions of growth then picked away from the antrum showed under the microscope a vast number of small round cells, some larger and spindle-shaped, and but little connective tissue.

For five years past I have preceded the removal of the jaw by a preliminary operation of tracheotomy, as this enables us to avoid the chances of suffocation by clots getting into the glottis, and also diminishes shock by allowing us to operate in the horizontal supine position.

[The tracheotomy was now done, and a large tube inserted into the windpipe. Thenceforward the ether sponge was applied to the mouth of the tube.]

Placing the patient upon her back, I uncover the upper jaw by Ferguson's incision. This begins at the inner angle of the eye, and goes down round the ala of the nose and through the myrtiform fossa of the upper lip. No other cut is needed to remove the superior maxillary bone. Thus we avoid unsightly scars, mutilation of the muscles of expression, and division of the facial nerve. The vessels having been secured, I now cut up the ala of the nose from the bone, and clear away the floor of the orbit; saw through the junction of the maxillary and malar bones; cut through the nasal bone, the os unguis, and the orbital process of the frontal into the corner of the eye; and then, having cut across the junction of hard and soft palates on the affected side, I divide the alveolus and palate process with the bone forceps. The jaw now removed verifies the diagnosis made ten days since. The roof of the antrum

¹ Ten days later.

is eroded and absorbed, and hence the depth to which the probe penetrated on that occasion. The antrum is thoroughly diseased, and a soft cellular growth extends back to the pterygoid plates and to the sphenoid cells. This we scoop away and touch the bone with a styptic. The skin flaps we now fit accurately together with stitches, and but little deformity will result. The trachea-tube will be removed in a few hours.

Nasal Polypus.— This woman, of middle age, has a polypus in the right nostril. It has been growing some weeks, and is in view at the orifice of the nose; a fragment of this was removed yesterday, and under the microscope showed nests of epithelial cells. It is, then, a form of cancer, but does not appear to have invaded the antrum.

I purpose to remove it by cutting around and turning up the ala of the nose. On opening this window in the side of the nose the tumor springs into view. The growth, together with the turbinated bones, will now be cut away with cutting-forceps. The disease is confined to the right nasal cavity. The nose is to be plugged with an oiled rag, packed with small sponges, and the flap of skin restored to place and stitched.

CASE OF INDUCTION OF PREMATURE LABOR FOR PELVIC DEFORMITY.¹

BY W. L. RICHARDSON, M. D.,

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M. P., a colored girl, twenty-two years of age, entered the Boston Lying-In Hospital on May 12th to await confinement. When five years of age she was struck upon the back by a falling window-sash, and soon after a "lump" appeared at the seat of injury. From that time until the age of eleven she became more and more hunch-backed. Her spine presented the usual curvature of a hunchback, the antero-posterior curve being particularly prominent, while there was also some lateral inclination to the left. Suspicions of a deformed pelvis being excited, an examination was made under ether, the sensitiveness of the patient rendering the administration of an anæsthetic necessary. The antero-posterior diameter of the pelvis was found to be much shortened, the distance from the symphysis to the promontory of the sacrum being roughly estimated at two and three-fourths inches.

The patient being seven and a half months advanced in pregnancy the induction of premature labor was considered advisable. My colleague, Dr. Tuck, after an examination on the following day, having arrived at the same conclusion, the case was submitted to the consulting staff of the hospital. Accordingly, on May 14th, the patient was

¹ Read before the Obstetrical Society of Boston, November 10, 1877.

etherized by Mr. W. O. Moseley, the house physician, and a careful examination was made by Drs. Minot, and Reynolds, and myself, and the following measurements were taken by means of Baudelocque's calipers : —

PELVIS: EXTERNAL MEASUREMENTS.

Antero-posterior diameter	6 inches.
Antero-superior iliac spines	8.625 inches.
Central points of iliac crests	10.25 inches.

INTERNAL MEASUREMENTS.

Inlet. Antero-posterior	2.75 inches.
Outlet. Antero-posterior (from sacro-coccygeal joint)	4.50 inches.
Transverse	4.25 inches.

The coccyx was very movable, and the arch of the pubes widely spreading.

The induction of premature labor being unanimously advised, and the bladder having been previously evacuated, a full-sized elastic male catheter, thirteen and one half inches long, was passed without the stylet between the membranes and the walls of the uterus at the posterior part and along the median line, the membranes being unruptured. The catheter was retained in place by introducing a stylet for about three inches, and curving the remainder of the wire up over the abdomen as a point of support, the whole being fastened by a piece of tape, the centre of which was tied round the mouth of the catheter, one end passing over the pubes and through the ring of the stylet, and the other passing backwards over the sacrum, both ends being subsequently secured to a waist bandage.

The catheter was introduced at 11.05 A. M., and at 2.15 P. M. labor pains set in, recurring at intervals of about fifteen minutes through the afternoon. At nine P. M. the pains were of moderate severity, principally in the back, and occurring once in ten minutes. Catheter still in place. Cervix wholly taken up. Os about the size of a cent, admitting finger; soft and dilatable. Head of child resting on superior strait. Pulse 100. The foetal heart was heard two inches to the left of the umbilicus, 164. Urine drawn with the catheter.

At 9.30 P. M., the labor progressing favorably, the catheter was withdrawn, and soon after the pains became more frequent, occurring once in five minutes, and continuing so through the night.

At two A. M. on the morning of the 15th three fifteen-grain doses of hydrate of chloral were given at intervals of twenty minutes, without much effect, however, upon the patient. The os at this time, although quite soft, was but slightly dilated. At 5.30 A. M., after two severe pains, the patient was attacked with profuse flowing, and the os was found two thirds dilated, with a tense bag of membranes protruding, on rupturing which the hæmorrhage immediately ceased. The head now descended rapidly to the perinæum, and was seen present-

ing it the vulva within half an hour after the escape of the liquor amnii.

Several pains having failed to accomplish expulsion, and the pulse being 160, it was decided to apply the forceps and thus terminate the labor. Ether being administered, the blades were therefore introduced, and the slightest traction was sufficient to supply the slight lack of rotation which existed, and the child was expelled almost without effort at 6.55 A. M. The child was a male, weighing three pounds, and was at once wrapped in cotton-wool and kept warm, but despite the precautions usually adopted in such cases it died in about seventeen hours.

An examination of the head gave the following measurements:—

Bi-parietal	3.125 inches.
Occipito-frontal	3.875 inches.
Occipito-mental	4.75 inches.
Length of fœtus	18.50 inches.

By slight compression the bi-parietal diameter measured two and three fourths inches.

The uterus for some time showed a tendency to relax, but finally remained firmly contracted. The patient recovered well from the ether, and soon fell asleep.

During the next few days considerable abdominal pain was complained of, requiring the administration of morphia for its relief. The lochia were scanty, but not offensive. There was no milk.

On the 20th all abdominal pain had ceased, but a profuse diarrhœa set in, the lochia became offensive, and the mind somewhat wandering. Pulse 132. Temperature 102°. Quinine, two grains every four hours, was administered. Synovitis also appeared in the left knee, causing stiffness and pain. From the 22d, however, she commenced improving steadily, the mind becoming clear and the bowels regular. On the 24th the quinine was diminished to two grains three times a day, owing to the appearance of slight symptoms of cinchonism. The temperature and pulse were uniformly high from the first, the former ranging from 100.6° to 105.2°, and the latter from 124 to 152. On the 28th she was transferred, convalescent, to the Massachusetts General Hospital, to be treated for the synovitis, from which she soon recovered, and was discharged June 30th, well.

SPRUDEL SALTS IN THE TREATMENT OF GALL-STONES.

BY M. GOLDSMITH, M. D., RUTLAND, VT.,

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DURING the winter of 1873 and the spring of 1874 a member of my family suffered severely from gall-stones. Opium could not be borne in any of its forms. Each administration of morphia, hypodermically or otherwise, was followed by uncontrollable nausea and vomiting, lasting

from twenty-four to thirty-six hours. Being unable to procure relief, I determined to take my patient to Carlsbad, Bohemia, for the purpose of trying the waters of that spa, so renowned throughout Europe in the treatment of gall-stones, and, indeed, in affections of the liver generally.

The Carlsbad springs, of which there are several, issue at somewhat distant fissures, and differ only in temperature. Sprudel is the name given to the hottest and largest spring.

Almost all persons resorting to Carlsbad place themselves under the care of some one of the resident physicians. I availed myself of the services of the most celebrated one, Dr. Sukan, of Vienna, who usually spends the season there.

The "course" in cases of gall-stones is substantially the following: The patient is directed to rise early, for the waters are to be taken before breakfast. He walks, if able, to whichever of the springs the medical attendant indicates, — almost always one of two hottest. Each person carries a glass with a handle, else it would be too hot to hold. This glass holds about as much as a medium-sized tumbler. The patient has it filled by one of the attendants, and sips the water when it gets cool enough to swallow. He drinks it slowly. In about fifteen minutes he takes another, and in fifteen minutes more a third, commonly the last glass. If strong enough he moves about while drinking the water, and, after completing the requisite number, he takes a walk if his lodgings are so near the spring that going to and fro does not give the necessary exercise. Now all this drinking is to be so timed that the breakfast is not until half an hour has passed after the last glass.

The temperature of the water seems to be a matter of some consequence. If it is taken too hot it may produce a sense of fullness of the head, or even headache. In such case the patient must wait until the water grows cooler. If it is taken too cold it may purge. In this case he must drink it while it is hotter. The water if taken warm seems to be absorbed more quickly from the stomach. I myself have on some mornings sipped six or seven glasses without any feeling of distention or other inconvenience.

For breakfast the patient is allowed to have a cup of coffee or chocolate, two boiled eggs, and bread; nothing more. Butter and vinegar are entirely prohibited. For dinner he has soup, rare meat, and vegetables; no butter, cheese, or vinegar. Exercise by walking or riding before dinner is enjoined when the patient's strength and the weather permit. Under this treatment my patient had no more attacks of colic. All the patients with whom I became acquainted, except one, were relieved, many of them as promptly as mine. One gentleman seemed only partially relieved. I sent him to Heidelberg to Professor Simon, who, examining his gall-bladder with the hand in the colon, discovered

with his finger the reason of the failure of the Carlsbad water to do anything more than to palliate. The solution was this: the gall-stone was described as being larger than a pigeon's egg, irregular in shape, and thus could not pass. I have little doubt of the correctness of the diagnosis. For Dr. Simon showed me the method of his examination, not per rectum, but per colon. With his fore-arm passed up the gut nearly to the elbow he presented his finger so that I could feel it over almost the whole of the abdomen, except toward the right iliac region. Be that as it may, the Carlsbad waters, I am free to affirm, are the most certain remedy for gall-stones that we have. I know of nothing but these which does more than to palliate.

The gentlemen practicing medicine at Carlsbad do not seem, the best of them, to think that these waters play any solvent part with regard to the gall-stones. The stones passed there show no traces of erosion. The explanation they give is that the waters produce a great flow of limpid bile, which helps, mechanically, to extrude them, and at the same time cure, or at least lessen, the catarrh of the gall-bladder and duct, so that the stones in passing provoke no spasm, and the patients escape the atrocious pain commonly attending upon the passage. More than this, the diet and regimen help to break up the habit of making gall-stones which the liver seems to get into. The "course" is six weeks. Those who come through it enfeebled are advised to go to the iron spas. All are recommended to take a second course the succeeding season. I think it probable that this advice is not altogether disinterested.

All this the readers of the JOURNAL have doubtless seen before, but probably they have not read this statement, the very mention of which enrages a true Carlsbader: that Sprudel salts dissolved in hot water and taken in the same way that the waters are taken at the springs, or that the natural waters, which are imported into this country and can be had of the New York agent, heated to the temperature of the spring, are just as efficacious here as they are at Carlsbad, if only the patients will submit to the same regimen. My neighbors and I have used the Sprudel salts in this way amongst our patients with fully as good effects as I ever saw at Carlsbad. We have tried them in cases of gall-stones, in gastric catarrh, especially that of the intemperate, and in enlargement of the liver, with the most effect, however, in the acute or recent enlargements, presumably simple or subacutely inflammatory, and chiefly in that form accompanying hard drinking, which is almost always enlargement with fatty infiltration. It is supposed that the salts reduce the volume of the liver by virtue of the large secretion of bile which they induce. I have no doubt the diet and regimen contribute to this result. However that may be, the success of the practice is exceedingly gratifying.

Our method is to prescribe eighteen grains of the natural (not the artificial) Sprudel salts, to be dissolved in three glasses of hot water, and to direct these to be taken at intervals of at least fifteen minutes, the last, thirty minutes before breakfast; all to be sipped slowly, while walking if practicable. Sometimes I have heard patients complain of the size of the dose. In all such cases it turned out that the water was gulped, not sipped. One advantage in having the water quite hot is that if taken in large swallows it will scald, and thus sipping is enforced. Sometimes it may be well to increase the dose, sometimes to decrease it. If three glasses (eighteen grains) will purge even when taken hot, we must begin with a smaller dose. If three glasses make the head ache, although taken nearly cold, then nothing is to be done but to diminish the quantity.

In cases of enlarged liver the diet is regulated according to the physician's own notions. It need not be absolute or restricted to a few special articles of food; the absolute diet is required only in cases of gall-stones. In gastric catarrh the diet and regimen are such as are used in dyspepsia.

RECENT PROGRESS IN FORENSIC MEDICINE.

BY F. W. DRAPER, M. D.

The Medico-Legal Relations of the Post-Mortem Imbibition of Poisons.
—The discovery, by the toxicologist, of the absorbed poison in the tissues and organs of a dead body is regarded as irrefragable proof that the poison was administered during the life of the deceased. Is it possible that a poison can find admission within a human body *after death* and produce appearances similar to, if not identical with, those resulting from swallowing the same poison during life? To the discussion of this inquiry Prof. John J. Reese has contributed some recent observations.¹ He remarks that if the question can be answered affirmatively a very strong point in legal medicine will be made, since what has heretofore been regarded as one of the firmest pillars of evidence for the prosecution in cases of poisoning will be shaken, and a powerful weapon will be placed in the hands of the defense, which may be wielded by a skillful counsel either for good or ill.

There are two methods by which a dead body can possibly receive a poison into itself: one, the accidental, by means of which, after burial in a poison-bearing soil, in the course of time the decomposing tissues and organs are supposed to take up the noxious agent from the ground; the other, the intentional, where the poison in solution has been purposely introduced into the stomach or rectum, or hypodermically into

¹ Transactions of the College of Physicians of Philadelphia. Third Series. Vol. iii. 1877. Page 23.

the cellular tissue or into the blood-vessels, as in embalming. The first of these methods, the poisonous contamination of the dead body by the cemetery soil, is extremely problematical; in the case of arseniferous soils, for example, the arsenic exists in an insoluble combination with iron or lime, requiring hydrochloric acid to liberate it: so that the theory that a dead body may receive a poison from the earth in which it is buried is not a tenable one. But the other methods, by which poison may be intentionally introduced, are not so easily disposed of; and Professor Reese declares that in his opinion it is certainly possible that poison so introduced can by imbibition or osmosis become diffused so that the analyst will find it in the organs just as if it had been absorbed during life. This being granted, the really vital and practical question remains: Is it possible, in an unknown case of poisoning, disregarding all collateral clinical, anatomical, and legal evidence, to distinguish by chemical analysis alone between poison really absorbed during life and poison simply imbibed by the tissues after death? Professor Reese lays great stress upon the relative amounts of the poison recovered by analysis near the surface and in the interior of an organ, — the liver, for example; the evident explanation being that the blood in circulation would carry the poison to all parts alike, while post-mortem imbibition would affect the parts nearest the source of the noxious agent, and would not, especially in recent cases, penetrate deeply.

Some recent experiments of M. Scolusoboff, of Moscow,¹ show that in dogs and rabbits poisoned by arsenic this substance is deposited in the brain and spinal cord in far larger quantities than in the liver and other organs. If these observations should be verified upon the human subject, not only with regard to arsenic but also with regard to other poisons, the chemist would be in the possession of a positive and unequivocal method of distinguishing ante-mortem absorption and post-mortem imbibition. It would then be necessary for the pathologist to supply to the chemist the brain and spinal cord in addition to the parts usually preserved for analysis.

Professor Reese, in conclusion, states it as his opinion that, "in a trial for the capital crime of poisoning, the defense has the undoubted right to demand on the part of the chemical expert not merely proof of the detection of the alleged poison in the stomach, nor even proof of its discovery in the organs and tissues of the body, but evidence of its detection in the *interior* of these organs and in the brain and spinal cord."

Putrefaction of the Lungs. — Dr. Arrigo Tamassia has made some experiments with regard to the effects of putrefaction upon the respiratory organs.² His results are summarized as follows: —

¹ Archives de Physiologie, No. 5, 1875.

² Rivista speriment. di frenetria e di med. legale; Revue des Sciences médicales, July, 1877, page 216.

(1.) The epithelium is the first portion to manifest the changes due to putrefaction; it becomes opaque and granular, and presently disappears.

(2.) The epithelium of the foetal lung disappears two or three days earlier than that of lungs which have respired.

(3.) When decomposition takes place in the atmosphere the epithelium disappears on the eighth day; in the ground it disappears on the ninth day; in water on the tenth day; and in an ammoniacal solution on the twelfth day.

(4.) The subpleural and pulmonary connective tissue becomes opaque and granular, and is reduced to detritus in from forty to forty-five days.

(5.) The elastic tissue of the lung and of the pleura is entirely destroyed toward the seventieth day; but after the fifty-sixth day it has undergone changes which thenceforward render it difficult of recognition.

(6.) Putrefaction goes on more rapidly in the atmosphere than underground; it is slower still in water, and slowest in a solution of ammonia. The difference is from four to six days.

(7.) Lungs which have not respired undergo the changes of decomposition five or six days before those which have respired.

(8.) An ammoniacal solution gives to the pulmonary tissue a red color. Putrefaction underground renders it grayish. In the latest stages of decomposition it becomes a blackish pulp.

(9.) The pigment of lungs which have breathed is indefinitely preserved in this detritus.

(10.) Lungs which have respired lose, in the process of decomposition, their buoyancy.

(11.) Lungs which have not respired do not acquire by decomposition the property of floating on the surface of water.

(12.) The persistency of the pigment in the midst of lung tissue which has putrefied is not peculiar to the coloring matter of the respiratory organs. The dark pigments of the spleen derived from the blood are also preserved in the decomposition of that organ. Chemistry alone can determine whether the coloring matter of the lungs is of organic origin or is derived from coal.

Medical Evidence from the State of the Ovum or Fœtus in Cases of Criminal Abortion. — Is it possible from the examination of the aborted ovum embryo, or fœtus, to give a valid opinion whether the abortion was the result of accidental causes or of criminal interference? This question has recently come before the Société de Médecine Légale, upon the presentation of a case of presumed criminal abortion, and was referred to a committee, whose conclusions were as follows:¹ —

“(1.) Abortion in the *first* month of pregnancy is always attended

¹ London Medical Record, February, 1877, page 93.

with the expulsion of the complete ovum (*en bloc*), and it passes from the woman unperceived by her.

"(2.) The aborted ovum may, however, in some cases undergo spontaneous rupture during its passage through the neck of the womb.

"(3.) From the *second* to the *third* month also the ovum may be expelled in a complete condition; but this is not usual, except when the fœtus is dead. When the fœtus is living it is more common to find that it has undergone rupture. This depends on various conditions, such as the degree of resistance offered by the ovum, the force of the uterine contractions, and the state of the cervix uteri.

"(4.) The absence of the fœtus does not prove that there has been criminal interference, for if the dead ovum have remained long in the uterus the fœtus or embryo may have disappeared by solution.

"(5.) Dating from the *third* month it is usual to find the ovum broken up, abortion taking place at two periods, with the discharge of the fœtus followed by that of the placenta.

"(6.) At the *fourth* month, and subsequently, abortion may be regarded as a delivery on a small scale. At this period it is exceptional that the ovum is found expelled entire.

"(7.) Up to the third month the cord is too weak to resist the force required to extract the placenta; and, *a fortiori*, it would not be strong enough to allow an inversion of the parts, as was assumed in the case reported to the society.

"(8.) Rupture of the membranes, taken alone, cannot, therefore, be regarded as a sign of intentional abortion, and even if accompanied by an inversion of the membranes it cannot be admitted as sufficient evidence of a criminal act, even in the early stage of pregnancy."

Poisoning by Phosphorus.—It is not common to hear of cases in which phosphorus is taken as an abortifacient. A recent number of the *British Medical Journal* contains the report of a case which shows that this agent, like other irritants, may lead to the expulsion of the foetal contents of the uterus. A young woman, who was in the seventh month of pregnancy, procured some phosphorus paste and took a small quantity of it on two or three occasions. The symptoms were slow in developing; she suffered from severe pain and vomiting, and died in forty-eight hours, after giving birth to a still-born child. The post-mortem appearances were significant of phosphorus-poisoning. The stomach contained half a pint of dark liquid like coffee-grounds; there were large purple patches on the mucous surface. The contents and inner surface of the stomach were luminous in the dark. The upper portion of the small intestine was much congested. The liver was undergoing fatty degeneration. The medical witness in the case stated very properly that the phosphorus acted indirectly on the uterus by the irritation which it caused in the stomach and bowels.

Cases of Retarded Putrefaction and Prolonged Post-Mortem Rigidity.
 — M. Tarchini-Bonfanti records two cases of unusually prolonged rigor mortis and retarded putrefaction which occurred under his observation in Milan. The bodies of two women were found with their heads battered in and with the signs of profuse hæmorrhage about them. Rigor mortis was fully developed, and there were scarcely any evidences of putrefaction, so that M. Bonfanti and several other physicians and surgeons at first believed that the interval since death was not more than thirty-six hours. But when it was considered that the temperature was low (50° to 54° Fahrenheit), that the atmosphere of the room was dry and still, that the bodies were on a Dutch-tiled floor, exsanguine and with the alimentary tract nearly empty, and that the deaths had been sudden, the conclusion was reached that a longer period than thirty-six hours must have elapsed, and that the bodies might have remained in the condition in which they were found for twice that length of time. On the trial of the assassins, it appeared that death in these cases had occurred four days and a half before the discovery of the bodies.

PROCEEDINGS OF THE NORFOLK DISTRICT MEDICAL SOCIETY.

HENRY R. STEDMAN, M. D., SECRETARY.

NOVEMBER 13, 1877. The society met in Bradlee's Building, Roxbury, at eleven o'clock, the president, DR. J. P. MAYNARD in the chair. Present, forty members.

DR. R. T. EDDES gave an elaborate demonstration of the anatomy and physiology of the kidney by microscopic sections of that organ from man and from the rabbit, and illustrated his remarks by numerous diagrams.

PROF. G. F. H. MARKOE begged leave to call the attention of the society to the fact that the next convention for the revision of the United States Pharmacopœia will meet in 1880. That it is very important that the Pharmacopœia of 1880 should represent the most advanced pharmaceutical practice of the times, and that it should be something more than a mere list of official materia medica, with a collection of working formulæ for the preparations recognized by this work. At the last meeting of the American Medical Association, Dr. E. R. Squibb presented to that body a plan for the revision of the Pharmacopœia, proposing many changes in its character, with a view of completing the work without a commentary to explain it. The American Medical Association having declined to take the step proposed by Dr. Squibb, the next revision will be issued under the auspices of the National Convention for revising the Pharmacopœia, which will consist, as usual, of delegates from all incorporated medical societies and colleges of pharmacy in the United States. At the last meeting of the American Pharmaceutical Association a committee of fifteen members from all sections of the country was appointed, who were

instructed thoroughly to revise and print a Pharmacopœia which shall embody all the useful innovations proposed by Dr. Squibb, together with any other desirable changes and additions. The book so prepared will be offered by the American Pharmaceutical Association to the National Convention for revising the Pharmacopœia, in 1880. The committee, which includes Professor Markoe, has begun the vast amount of work assigned it, and has issued a circular giving a prospectus of the proposed changes, the following-named being some of the most important: (1.) The present division into materia medica (primary and secondary list) and preparations shall be abolished, and a strict alphabetical order substituted. (2.) Since it is better to have the Pharmacopœia too full than deficient, all articles at present officinal will be retained, and a full list of all new crude drugs, chemicals, and pharmaceuticals that have come into use during the past ten years shall be printed, and then the responsibility of their ultimate adoption or rejection shall be left with the final committee of revision. (3.) To all crude drugs short and concise descriptions are to be added, indicating the distinctive character as seen by the naked eye or by means of a good pocket lens. Sophistications should be mentioned. The botanical names of plants should have the name of the determining botanist given, as well as the natural order of plants to which it belongs. (4.) Temperature shall be expressed both by degrees of Centigrade and Fahrenheit. (5.) Chemicals that will admit of it shall have their formulæ expressed in the new notation, and their atomic and molecular weights given. (6.) All measures of capacity shall be abandoned, and quantities shall be expressed only in parts by weight. (7.) All officinal articles used as remedies shall have the average adult dose stated. (8.) Tables of the maximum single and daily doses of powerful remedies, of poisons and antidotes, of the solubility of the officinal chemicals in water and alcohol at 15.5° C. (60° F.) and at their boiling point. An alcoholometrical table. Tables of the specific gravities of the officinal liquid acids at 15.5° C. and 25° C. Table of reagents in proper dilution, and list of normal volumetric solutions. A table of the relationship between weight and measure of all liquid preparations. (This would facilitate the system of prescribing by weight alone.) A table exhibiting the differences in strength of powerful galenical preparations of the principal foreign pharmacopœias.

Professor Markoe said, in conclusion, that the committee would be only too glad to receive suggestions from physicians in regard to the introduction of new remedies, or any contribution that would aid in the proposed work. The committee recognizes the importance of consulting physicians as to what drugs should be authorized in the Pharmacopœia, and hence appeals to them for assistance in perfecting the list of drugs from which preparations are to be made.

DR. JOEL SEAVERNS then read a paper on some of the mineral waters of New England. He began by a description of some half dozen or more kinds of waters, which are much advertised in this vicinity, and also largely sold and drunk: namely, the Allandale, the Arnold Street, the Buxton, the Lewiston, the Mount Zercon, the Poland, the Vienna, and the Summit waters. The last six are brought from different sources in the southern-central parts of

Maine, from natural springs in a hilly region, and all of them have more or less local celebrity in the cure of illness. The Allandale is a spring at Jamaica Plain, and the Arnold Street water is from an artesian well in that locality one hundred and eighty feet deep.

He then gave Professor Bache's definition of mineral waters, — those which "have a decided taste and a peculiar operation on the economy;" but these which are here referred to have no taste, and their effects on the economy vary so greatly that they can hardly be called peculiar. He quoted also an amusing description given of the virtues of the water of Pymont in 1733.

The character of these waters, like that of all natural waters, depends on the soil and the geological formation through which they flow, and as almost the whole of New England is made up of about the same stratum of rocks, these springs are much alike. They are clear, tasteless, and have been spoken of erroneously as hardly different from the waters of old hard wells, — erroneously, because *these* waters do not contain sufficient minerals to render them hard. In them exist only from two to thirty grains of salts to the gallon, on which account they are safely recommended to one class of customers for the valuable medicinal qualities of their ingredients, or to another as being uncommonly pure waters, free from injurious ingredients.

These waters are not acidulous, chalybeate, or sulphurous, but simply saline, and resemble none of the well-known springs resorted to in Europe except those of Gastein; the latter contain similar salts in nearly the same proportions, but differ in the fact that they are thermal springs, having a temperature of about 111° , which may account for their popularity and usefulness. These salines (we select the most important) are much alike in all. In each gallon of water chloride of sodium, from one fourth of a grain up to thirty-two grains, is present; sulphate of potash, from traces up to seven grains in seven out of eight cases; sulphate of soda, from a tenth to three grains in four out of eight; carbonate of lime, from a third to two grains in five out of eight; the carbonates of magnesia and soda, from one fifth of a grain to one half in four out of eight; while in one the carbonate of iron occurs, as does also the crenate of iron, one fiftieth of a grain of the former and one third of a grain of the latter. In two specimens Dr. S. D. Hayes finds the bicarbonates of iron, lime, magnesia, and soda, from a twenty-fifth of a grain up to four grains; nearly one grain of sulphate of magnesia was present in one, and about the same quantity of chloride of calcium. Iodide and bromide of sodium were both found, nearly one tenth of a grain of the latter, and one hundredth of a grain of the former in one specimen of the waters. These, it must be remembered, are the amounts in a gallon.

DR. SEAVERNS then proceeded to demonstrate the fact that these different constituents are the ordinary salts of all springs; experience shows that chloride of sodium (common salt), being one of the most abundant of the very soluble salts, is present in almost all water; its valuable medicinal qualities are well known, although it is seldom prescribed by the faculty. Sulphate of sodium, Glauber's salts, an important constituent of Friedrichshall and other cathartic waters, prevails also in infinitesimal quantities in the Allandale, Lewiston, and other waters, the largest amount present being less than three grains

to the gallon, requiring more than eight gallons to be equivalent to a glass of Friedrichshall water.

Of the carbonates, that of lime (common chalk or marble) is the most abundant of all earthy carbonates, but is sparingly soluble, so that it cannot be held in large quantities by springs; the bicarbonate is more soluble, and therefore probably present in more waters than the former. The carbonate of iron, being insoluble, is of course seldom found, and the bicarbonate only in very small amount.

The sulphate of magnesia occurs in a great many of the mineral springs of Europe, generally with sulphate of soda and chloride of sodium, and necessarily adds to the cathartic property of these waters when present in any appreciable quantity. It is found in but one of them, and only to the amount of one grain to a gallon, so that twenty gallons would be equal to a glass of Friedrichshall water. Chloride of calcium is also extremely soluble and apt to occur with chloride of sodium.

From this hasty glance at these divers constituents and their therapeutic powers, it is plain that neither their presence nor the quantities in which they are found in these waters is especially noticeable, or peculiar enough to distinguish these from any other waters, either river or spring. This becomes still more evident if we place by the side of these analyses that of the water of Cochituate Lake. For we shall find the most noticeable features of the comparison to be the great similarity between them, and the presence in the latter of almost all the salts of the former, in very similar proportions, except that the Cochituate contains rather less in the total than the others, thus showing it to be, to say the least, as pure as any.

As the use of these waters is almost entirely without medical direction, and completely without diet or regimen, we can only arrive at very inadequate tests. As regards the waters from Maine, the Poland for instance, which has been longer in the market and employed more largely than any other, although there is perhaps no scientific proof of its efficacy, yet the popular faith in its virtues, among intelligent men who have used it, is so general that Dr. Seaverns had no doubt of its being in some sense well founded, and that in many cases of chronic diseases of the bowels, liver, kidneys, or skin, large draughts of this or other waters have been followed by improvement.

Now, as has been said, the amount of drugs in these waters is so exceedingly small that it does seem absurd to impute any influence on the affected organs to them, — that of the Allandale waters containing in a gallon less than three and one half grains of salts; so that a person who should eat a potato with salt upon it, or a so-called saleratus biscuit, or a griddle-cake made from the self-raising flour, would take a larger quantity of these salts (popularly supposed to be so noxious in bread, so healthful in water) than one would who poured down some quarts of these waters. And yet there is abundant evidence, more or less reliable, that patients suffering from abdominal obstructions, from dyspepsia, from early stages of Bright's disease, or from general debility have been benefited by the free use of the Lewiston, the Poland, or perhaps any other of these "remedies," the quantities imbibed being various.

Yet, in estimating the virtues of these waters, we should do them injustice if we did not state that it is believed by competent observers that *all* mineral waters have upon the economy an influence greater, for better or worse, than can be explained by the specific action of the various salts they contain. Thus Sir Henry Thompson alludes to this when, recommending the use of certain waters in the treatment of calculous disorders, he says that small quantities of drugs as they exist in mineral waters will act more freely than will the same quantities combined after the ordinary pharmaceutical methoda. Nevertheless, if we grant this, it will still be difficult, taking an impartial view of the analyses of these waters and that of the Cochituate, to believe that any one of them has a special curative power.

Finally, Dr. Seaverns believed that the cathartic, diuretic, diaphoretic, and tonic effects of *water* — for in these various ways it may act — account for the favorable results experienced after the use of our so-called mineral waters. We hear nothing, of course, of the injurious effects that these waters probably have on some of those who indiscriminately flood themselves with these remedies, but every physician is well aware that many persons cannot take cold water freely without experiencing unpleasant feelings of weight and coldness at the epigastrium, and impaired digestion. So that even those who have charge of hydropathic establishments declare that they find many who cannot with impunity begin with more than half a tumbler of water at once, although they hope in time so to cultivate their powers that they may take from four to six up to twenty or thirty tumblers in a day; but almost all such persons warn patients against the indiscriminate or too abundant internal use of water, and declare that they have seen not a little mischief arise from it.

In conclusion it seemed to Dr. Seaverns that the cures seen to be wrought by the *medicinal ingredients* of these so-called "mineral waters" were entirely imaginary; but nevertheless he saw no reason why a physician might not, in very many cases, prescribe almost any of them after a discreet and reasonable method, and expect confidently to see benefit resulting.

DR. ARTHUR H. NICHOLS read a paper, which is reserved for publication, upon Aiken, South Carolina, as a health resort.

DR. MAYNARD related the case of a patient of his who had been in ill health for many years, the trouble being referable to overwork in business and the symptoms nervous in character, — debility, headache, insomnia, etc. Supposing that he had brain disease, he traveled for his health, and soon made a stay near a mineral spring where he began taking the waters, from which time his health rapidly improved, he slept well, etc. This he ascribed to drinking the water, which he did to a great extent, and to this day he cannot be persuaded that his improvement was due to the change of climate and scene, out-of-door life, and rest.

DR. HENRY A. MARTIN, while in the army, found that the health of many men, who while at home had been sick and delicate, became vastly improved by the rough out-of-door life in service, but who on their return home relapsed into their former condition of ill health. Dr. Rush, he said, believed in the establishment of sanatoria, and he himself had no doubt that the success of many hydropathic institutions was due to the change of scene and life, as well as the climate, which they afforded. He had little faith in any particular

place as a resort for patients, believing that the mere change of climate was the important factor in their cure. He then cited two cases in support of this. Dr. Martin also took occasion to refer again to Carr's radial splint, which he had recently brought to the notice of the profession, and spoke of the difficulty of inspiring medical men as a body with any interest in a really good invention. He brought forward additional cases of bad results by other treatment, by straight splints, etc.

Other members of the society gave evidence of the efficacy of this splint in their hands, Drs. SEAVENS and STREETER speaking warmly in its favor. DR. STONE had had a fair result by its use. He said it had the advantage of being easily made, and answered its purpose well.

PROFESSOR MARKOE brought forward a sample of ergotine made in his laboratory, and remarked that Bonjean's ergotine, a preparation of ergot, is being used to a considerable extent, some physicians prescribing it under the impression that it is the true active principle of ergot. This is not so, he said, and proceeded to describe its preparation, thereby showing that it is really nothing more than the alcoholic extract of the aqueous extract of ergot. Dr. Squibb's extract, made by the evaporation of the fluid extract of ergot (U. S. P., 1860), he considered a better preparation, because made by a process less likely to injure the ergot, one grain of this representing six and a half grains of good ergot. He presented the sample to show the appearance of the article given by the process explained. He believed the fluid extract to be the best preparation of ergot, but it is unfit for subcutaneous injection owing to the presence of alcohol and acetic acid, ingredients necessary to its preparation. For that purpose the solution of the extract or of ergotine in distilled water is much better, because less likely to produce abscesses.

ANNUAL MEETING OF THE NEW YORK STATE MEDICAL SOCIETY, JANUARY 15, 16, AND 17, 1878.

THE society met at Albany, as usual, on the morning of January 15th, the vice-president, Dr. A. L. Saunders, of Madison County, in the chair. According to the announcement of the secretary, Dr. William Manlius Smith, afterwards, there were present during the session one hundred and fifty-seven permanent members, delegates, and invited guests.

After prayer by the Rev. Dr. Rufus Clark, of Albany, the vice-president, Dr. Saunders, made a few introductory remarks, in which he stated that on the 20th of December he learned that the president elect, Dr. J. Foster Jenkins, of Yonkers, would be unable to serve, and that in the short interval that had elapsed since then it had been quite impossible for him to prepare an address suitable to the occasion. Having briefly spoken in a congratulatory manner of the progress that was continually being made by the profession in this and other States, and encouragingly as to the future, Dr. Saunders announced the committee on credentials as follows: Drs. N. C. Husted, E. H. Lyman, and H. N. Porter.

The secretary read a letter from Dr. Jenkins expressive of his high appreciation of the honor, but regretting that he was obliged to decline the office of

president of the society, after which the treasurer read another note from Dr. Jenkins, in which he inclosed a check for one hundred and twenty-five dollars as a contribution to the funds of the society, which was received with thanks.

The vice-president announced the names of the gentlemen to serve on the business committee and the committee of arrangements, and then, on motion of the treasurer, Dr. Porter, a series of resolutions was adopted, requiring that only permanent members and delegates who had registered and paid their dues should be allowed to vote for members of the nominating committee in the several senatorial district caucuses; that each caucus should elect a chairman and a secretary, and that each chairman should report the result of the caucus to the society in writing.

After a short recess had been taken, Dr. William H. Bailey, chairman of the committee on arrangements, reported the names of the gentlemen who were present as members by invitation, among them being Dr. William D. Lamb, of Lawrence, Mass., delegate from the Massachusetts Medical Society.

The committee on ethics was announced as follows: Drs. William C. Wey, D. B. St. John Roosa, and James Chapman.

Dr. E. R. Squibb, chairman of the business committee, having stated that according to the rules the present was not a strictly legal meeting of the society, the matter, on motion of Dr. John W. S. Gouley, was referred, with power, to the business committee.

Dr. Dimon, of Cayuga County, inquired what was to be done in regard to the proposition that had been made to secure the passage of a law providing a proper amount of compensation to medical experts when summoned as witnesses, and the matter was referred, on motion, to the business committee.

On motion of Dr. C. M. Allin, of New York, a diploma was granted to Alphonse Dagenais, the business committee having announced that his name was unanimously recommended by the censors of the Western District. The society then adjourned to meet at three P. M.

In the afternoon session the first business of importance was the report of the committee on publication, which was read by Dr. E. R. Squibb, and adopted by the society. It recommended that the dues of permanent members and delegates should be paid at the beginning of the year, and in regard to the published Transactions the following provisions: That the amount charged for the Transactions be the publisher's price until the volumes were four years old, when, if more than one hundred copies remained unsold, they might be disposed of at fifty cents per volume; that when such editions were reduced below one hundred copies the price should be raised to one dollar; and that each county society should be required to take annually a number of copies equal to five times the number of delegates such county society sends to the State Medical Society.

The committee on nominations, composed of one member from each of the eight senatorial districts, was next announced by the chair, after which Dr. Eugene Beach, of Gloversville, read the first regular paper, which consisted of the report of a case of Punctured Wound of the Stomach, with Recovery. The patient made a very narrow escape with his life, but in two months' time was quite well again.

During the same session the following papers were also read: Contribution

to the Study of Auditory Epilepsy, by Dr. Allan McLane Hamilton, of New York. (It was illustrated by a case in point, and Dr. D. B. St John Roosa made some remarks upon it.) Penile Fistulæ in the Ante-Scrotal Region, by Dr. R. F. Weir, of New York. (Colored plates were used in illustration, and a case of successful operation was reported.) A Clinical Observation relating to Vaccination during attacks of Pertussis, by Dr. George Bayles, of New York. (The writer was of the opinion that the disease was favorably affected by vaccinia. This view was also supported by Dr. Cronin, of Buffalo, who stated that he had been in the habit of resorting to vaccination as one of the means of treatment in suitable cases of whooping-cough for the last thirty years.) Registration of Vital Statistics and Methods to be adopted to secure Desired Results, by Dr. Elisha Harris, of Auburn. (Discussion by Dr. Squibb and others.)

When the society reassembled in the evening, Dr. Edouard Seguin, of New York, presented a report of the workings of the International Medical Congress held at Geneva in 1877. He showed the priority of American physicians in the movement for obtaining greater uniformity in the practice of medicine and in pharmacy among the different nations of the world, and stated that a commission of seven had been appointed for the purpose of promoting this object, of whom two were Americans, two French, one Swiss, one Belgian, and one Norwegian.

Dr. Stephen Smith, of New York, read a report on the Use of Lister's Antiseptic Methods in Surgery, with the recital of many interesting cases in illustration. The discussion of this subject, by Drs. Weir, Hutchinson, Minor, Chapman, Wolcott, Cronin, and Squibb, occupied the remainder of the evening.

On the morning of the 16th, after prayers and the reading of the minutes, Dr. J. G. Richardson, of Philadelphia, delegate from the Pennsylvania State Society, was introduced by the chair, and made a few remarks. The names of quite a number of members by invitation were also announced.

The report of the treasurer was next in order. This showed that the society was not in a very good condition financially, and that considerable money was annually lost by the publication of the Transactions.

Dr. Squibb hoped that the plan which had now been adopted for the sale of the volumes would obviate the latter difficulty in the future.

On motion, the treasurer's report was referred to an auditing committee consisting of Drs. Govan, of Rockland, and Burr, of Broome County.

The committee on ethics then made a report on a communication from the New York County Medical Society in reference to the articles of the code of ethics on the "duties for the support of professional character," and the "duties of physicians in regard to consultations." They considered that the county societies had ample power to act in all such matters, though, of course, any decision of such society might be appealed from and referred to the state society, if desired.

The report on Codification of the By-Laws, by Dr. Hutchings, of Brooklyn, who was absent, was read by Dr. Hutchinson, and adopted by the society.

The business committee presented a series of resolutions designed to cover the technical illegality of the society's meeting at the present time of the year, which were unanimously adopted. The recommendations made in them were

as follows: That this meeting, commencing January 15, 1878, is hereby declared to be an adjourned meeting from June, 1877. Secondly, that an annual meeting be held in Albany on the date for holding the next annual meeting (the third Tuesday in June, 1878), when by a quorum, consisting of the presiding officer of this meeting, the secretary, the treasurer, and twelve other permanent members or delegates, the transactions of the present meeting shall be ratified.

In accordance with another resolution offered by the business committee, it was then voted that the regular time for holding the annual meeting of the society should hereafter be the third Tuesday of February.

The business committee next reported a resolution recommending the passage of a law providing proper compensation for the testimony of medical experts, and on motion of Dr. Mosher a committee of three, with Dr. Dimon, of Cayuga, as chairman, was elected to secure the passage of such a law.

The deaths of Drs. Dean, Hiram Corliss, and L. B. Cobb were then announced by the secretary, and after some miscellaneous business Dr. Walter B. Chase, of Windham, read a paper on Laceration of the Cervix as a Factor in Uterine Disease, which was discussed by Drs. Fordyce Barker, A. Jacobi, and H. T. Hanks.

A paper on District School Hygiene was read by Dr. Jewett, of Canandaigua, and after the reading of letters from Dr. Louis Necker, of Paris, and W. A. F. Brown, of Dumfries, Scotland, the society adjourned.

At the afternoon session the committee on hygiene reported through Dr. A. M. Bell, of Brooklyn, the editor of the *Sanitarian*.

Dr. Perkins, of Schenectady, read a paper on the Estimation of Urea, and Dr. Joseph G. Richardson, of Philadelphia, one on an Improved Method of detecting Leucæmia in its Early Stages, and for enumerating White Blood Globules.

Dr. Thomas R. Pooley, of New York, read a paper on Ischæmia of the Retina.

* Dr. Arthur Matthewson read a paper on the Diagnosis of Intracranial Tumors, in the course of which he related a number of cases.

Dr. E. R. Squibb read a Note upon Hydrobromic Acid, and Dr. Goodwillie, of New York, a paper on the Salivary Glands, some of their Diseases and their Treatment. The subject was beautifully illustrated by wax models, which Dr. Goodwillie has acquired great skill in constructing.

Dr. Benedict, of Syracuse, read the report of a case of Intussusception, with Sloughing and Extrusion of a Portion of the Small Intestine, in which the patient recovered.

Dr. Giberson, of Brooklyn, read some surgical notes, with a case of Nerve-Stretching in Sciatica. In the latter the result was favorable, although it had previously resisted almost all other methods of treatment. Dr. Giberson spoke favorably of the use of nitrous oxide, and at the conclusion of his paper quite a lively discussion arose in regard to the comparative advantages and disadvantages of the different anæsthetics.

On the morning of the third day, January 17th, Dr. E. R. Squibb, president of the business committee, brought before the society a request which had been received from the Niagara County Society, that action should be taken on the following resolutions:—

"Resolved, that it is a breach of the code of medical ethics for a member of a county society, which is entitled to send delegates to the State Medical Society, and who is in the general practice of his profession, to use upon his sign or bill-heads, or in advertisements, the words, 'Eye and Ear Infirmary,' or 'Oculist and Aurist.'" The resolution gave rise to a considerable amount of discussion, and was finally passed, after an amendment by Dr. Wm. H. Bailey, of Albany, to the effect that the words "general practice" should be omitted.

Dr. Bailey then presented his report as censor to the University of Syracuse, after which the nominations decided upon by the committee on nominations were read by the secretary of the committee, Dr. Fergusson. The principal ones were as follows:—

For president, Dr. D. B. St. John Roosa, of New York; vice-president, Dr. Judson C. Nelson, of Truxton, Cortland County; secretary, Dr. Wm. Manlius Smith, of Manlius, Onondago County; treasurer, Dr. Charles H. Porter, of Albany. Censors: Southern District, Drs. E. R. Peaslee and Ellsworth Elliott, of New York, and E. H. Parker, of Poughkeepsie; Eastern District, H. B. Whiton, Troy, J. L. Babcock, Albany, J. P. Shaw, Little Falls; Middle District, M. M. Bagg, of Utica, G. W. Cook, Otsego, and C. G. Bacon, Fulton; Western District, C. C. Wyckoff, Buffalo, H. Jewett, Canandaigua, and C. Green, Homer. Then followed the list of the various committees, and after that of the delegates to the state medical societies of Massachusetts, Pennsylvania, Connecticut, New Jersey, New Hampshire, Vermont, Rhode Island, and Ohio, to the Canadian Medical Society, and to the American Medical Association. The delegates to the Massachusetts Society nominated were Drs. H. P. Farnham and J. L. Banks, of New York; and the New York delegates to the American Medical Association were Drs. C. S. Wood, T. Addis Emmet, J. M. Miner, and J. W. S. Gouley. Eighteen permanent members were nominated, of whom Drs. J. H. Hinton, James R. Leaming, and D. B. St. John Roosa were from New York. Dr. Clarkson T. Collins, of Great Barrington, Mass., was nominated as an honorary member, and the following gentlemen as eligible to honorary membership: L. Auguste Mercier, Paris, Christopher Heath and J. C. Bucknill, London, H. I. Bowditch, Boston, and J. S. Billings, United States Army. The report of the nominating committee was accepted, and, on motion of Dr. Cook, the vice-president was instructed to cast the ballot for the various gentlemen nominated in it.

Dr. L. Duncan Bulkley read a paper on Diet and Hygiene in Diseases of the Skin. In connection with this a point in regard to medical ethics was raised by Dr. Squibb, as, in speaking of the subject of infant feeding, Dr. Bulkley mentioned favorably the preparations of the "New York Food Company." After considerable discussion on the point, Dr. Bulkley stated that he was willing to omit the above name, as well as that of Nestlé, which also occurred in his paper, and, on motion of Dr. J. S. Bailey, it was voted that, "as the sense of the society, it would be wise to leave the names referred to out of the paper before it appeared in the Transactions."

In the absence of Dr. C. S. Wood, of New York, through whom the paper had been presented, a report upon School Hygiene, from the New York Medico-Legal Society, was read by Dr. Squibb. On motion, the report was

accepted, and the thanks of the society tendered to the Medico-Legal Society through Dr. Wood.

A paper by Dr. Van Derveer, of Albany, was read by title, and referred to the committee on publication. Its subject was as follows: On a Successful Case of the Removal of a Uterine Fibroid through the Posterior Walls of the Vagina, and Electrolysis in the Treatment of Uterine Fibroids by means of Cutter's Needles.

On motion of Dr. Craig, the thanks of the society were extended to Dr. Saunders for the courteous and dignified manner in which he had presided, and, on motion of Dr. Stiles, to the Albany County Medical Society for their hospitable entertainment.

Before adjourning the minutes were read and approved, and then, on motion of Dr. Squibb, the society adjourned to meet on the third Tuesday in June, of the present year, when merely a legal quorum will assemble at Albany, for the purpose of ratifying the foregoing proceedings.

During the session of the society the following invitations were received and accepted, all for the same evening, Wednesday, January 16th:—

From the directors of the Dudley Observatory to visit the observatory.

From the Albany County Medical Society to attend a reception at the Delavan House.

From the governor of the State to attend his weekly reception.

Members of the legislature (which is now in session) who were members of the regular profession were cordially invited to attend the meetings of the society, by a special committee appointed for the purpose.

VIRCHOW ON POST-MORTEM EXAMINATIONS.¹

THE value of an autopsy is largely due to the adoption of an exact method in its performance, and to an accurate statement of the objective results. The records of the anatomist become useful in proportion to his success in inserting only matters of actual observation, expressed in terms which permit the least possible ambiguity. The experienced anatomist is able to furnish more complete records, because his experience has taught him the additional value of negative evidence, and his training has resulted in a higher cultivation of his powers of observation.

For those, therefore, who have comparatively few opportunities of making autopsies it becomes all the more necessary that method and exact statement of appearance should be adhered to. If this be true of autopsies conducted for clinical purposes, it is all the more so in those cases where medico-legal interests are to be served. The expert who may be called upon to give an opinion as to the bearing of evidence is necessarily limited by the quantity and quality of such evidence. His opinion becomes the more weighty the freer it is from qualifications, while the latter are all the more numerous the less complete the evidence.

In the first volume of the new series of the *Annals of the Charité Hospital*

¹ *A Description and Explanation of the Method of Performing Post-Mortem Examinations, with Especial Reference to Medico-Legal Practice.* By PROFESSOR RUDOLPH VIRCHOW. (From the *Charité-Annalen*.) Pp. 86. Philadelphia: Lindsay and Blakiston.

in Berlin is a paper contributed by Virchow, which gives valuable information upon the general subject of post-mortem examinations. A translation appeared some time ago in the *Medical Times and Gazette*, and we take great pleasure in calling the attention of our readers to the production, in book form, of the translation. The paper serves rather as a guide-post than a guide, and although it does not call attention to every obstacle in the path, it is useful in pointing out the best way.

The importance of accuracy in description is strongly insisted upon, and some of the means of avoiding errors of observation are referred to; reasons are also given for the adoption of a certain method which long-continued experience has shown to be the best. Attention is called to the class of cases in which exceptions are permitted or necessitated, and even such apparently simple information as the holding of the knife and the means of insuring the utmost possible cleanliness is presented.

A detailed description is also given of the best manner of opening the heart and brain, organs which offer a very delicate test for determining the degree of technical skill acquired by the operator.

The author does not content himself with giving directions merely, but adds the records of three cases, which, apart from their general interest, serve as models in the way of description. Although especial reference is paid to medico-legal practice, the greater includes the less, and clinical purposes are the better served the more closely the thoroughness demanded by law is adhered to as a custom.

The style of the author is admirably preserved in the translation, and the chief thought which follows the reading of this *brochure* is the highest compliment which can be paid it,—a regret that so limited a contribution has been made from so vast a treasury.

ORTH'S PATHOLOGICAL ANATOMY.¹

THE present volume comes indeed at a very opportune time, when the interest in pathological anatomy has become so wide spread that both student and practitioner will welcome a thorough and scientific guide book for practical post-mortem work. A few years ago Dr. Francis Delafield appreciated the need that was then felt, and prepared an excellent manual that contributed largely to the extension of our knowledge in this direction, and was indispensable as a guide for the gross part of pathological study. We have now, however, reached an epoch when the advantage and necessity of still more accurate and minute knowledge in these matters have been forced upon us in a way that certainly should be clear to every medical man. We shall have missed entirely the lesson of the Harriet Staunton affair in England if we have failed to see that pathological analysis is a specialty, just as ophthalmology

¹ *A Compend of Diagnosis in Pathological Anatomy, with Directions for making Post-Mortem Examinations.* By DR. JOHANNES ORTH, First Assistant in Anatomy at the Pathological Institute in Berlin. Translated by FREDERICK CHEEVER SHATTUCK, M. D., and GEORGE KRANS SABINE, M. D. Revised by REGINALD HEBER FITZ, M. D., Assistant Professor of Pathological Anatomy in Harvard University. New York: Hurd and Houghton; Boston: H. O. Houghton & Co.; Cambridge: The Riverside Press. 1878.

or the practice of surgery. We must not be surprised, then, that average practitioners, armed merely with the teachings of the ordinary schools or with the scant information about pathological changes which many of them possess, when they attempt to explain the cause of death in obscure cases, either utterly fail, or ascribe it to lesions of which the existence is in grave doubt.

It has been one of the greatest triumphs of Virchow that the practical results of his teaching in the autopsy-room have been incorporated into the new German code governing the performance of autopsies for medico-legal purposes by forensic physicians. We are glad to know that his methods have received due recognition in the present work, and in fact seem to form the basis upon which the author has rested his views in a very great measure. Dr. Orth, as Virchow's first assistant, has not only had an excellent opportunity of testing the system of his master, but, himself a teacher, has doubtless learned the practical wants of post-mortem workers.

The author's system, which is given in this volume, is founded upon the theory that all post mortems should be conducted as if for medico-legal purposes; and very properly so, for it is always impossible to tell in an autopsy whether the case may not become a matter of medico-legal inquiry. We have no hesitation in saying that the new German regulations are the most perfect in the world. We hope, indeed we feel sure, that some such system will be inaugurated in this country.

The author devotes a short chapter as an introductory to the question of instruments and the appliances for chemical and microscopical work. He then takes up all the organs of the body in the order in which they should usually be examined, giving such changes as are to be noted in the dead body. The book is a real cyclopædia, and the reviewer after reading it carefully finds that there is little to criticise, and the omissions are trivial. One might wish that we were told more about the topography of the brain, so as to be able to locate lesions more accurately. This matter doubtless belongs strictly to anatomies, and yet it is from a pathological stand-point that we are most frequently called upon to give a careful study to the brain. It cannot be amiss to state here that Dr. E. C. Seguin has appreciated this difficulty which is often felt by practitioners, and has published a sheet of Diagrams for the Study of Cerebral and Spinal Lesions, which should be in every post-mortem room, and will help much towards the localization of cerebral lesions. We may also add that we sometimes stumble across such words as *nucleus caudatus*, *auditory striæ*, etc., that remind us how lacking our present anatomical hand-books are, and how desirable it is for those who are not "nerve-men" to have a Henle always at hand. We are also surprised and pleased that the text is not more closely sprinkled with *micrococci*, and in this respect, as well as when the author modestly expresses a different opinion from Virchow, we see that he is not only a man who has well mastered his subject, but that he has a better judgment also than some of his German confrères among the pathological anatomists. In conclusion, we cannot recommend the book too highly: the style is succinct and pleasant; it is admirably translated and revised, and should be in the hands of every physician who desires to make a thorough post-mortem examination.

T. E. S.

HARVARD MEDICAL SCHOOL.

IN his annual report the president of Harvard University states, in regard to the medical department, that in three years the school has cleared more than twenty-five thousand dollars over and above its expenses. The credit balance, \$22,777.88, is to be reserved for future contingencies, but in the future most of the annual surplus will be applied to increase the moderate salaries of the professors. He calls attention to the fact that the percentage of persons holding literary or scientific degrees among the students of the medical school has risen to forty-four per cent.; seven years before it was but twenty-three per cent. The examination for admission to the school was held for the first time in 1877. Out of thirteen candidates who presented themselves in June, seven were admitted and six rejected; out of twenty-nine candidates in September, twenty were admitted without conditions, seven with conditions, and two were rejected. The wholesomeness of the examinations is, he thinks, manifest. The average quality of the students will be improved in this way by the fact that persons destitute of academic training will be kept out of the school. He concludes with the following remarks:—

“The example which this school set in 1871, in reforming the plan upon which medical education had been given in this country, has now been followed in part by two other prominent schools, the medical school of the University of Pennsylvania, and the medical school of the University of Michigan. The Pennsylvania school has not lengthened its term or increased its tuition fee, but has adopted the other features of the Harvard plan. The Michigan school has lengthened its term to nine months, but demands only two terms’ attendance. The action of these two schools, though not thorough-going, foretells the speedy downfall of the old system of medical education. The schools connected with universities will abandon it first, and the schools which are commercial ventures will do likewise, when public opinion has so made itself felt on this subject that it will discredit a physician or surgeon to be connected with a school which admits to the profession rude, ignorant, and unskillful men.”

From the dean’s report we find that the total number of students in attendance during the past year was two hundred and forty-seven, the number varying slightly each term. (At the time of publishing the catalogue this year, two hundred and twelve students had joined the school.) It contains a valuable schedule of the various exercises, lectures, recitations, etc., held at the school, giving in an easily comprehended form the exact amount of work done in each department during the year.

MEDICAL NOTES.

—Dr. Edmund Randolph Peaslee died on January 21st, at the age of sixty-three years, of pneumonia, contracted by exposure resulting from unusually pressing professional engagements. He was born in Newton, N. H., was educated at Dartmouth College and graduated in 1836. He graduated from Yale Medical College in 1840. During the following year he began the practice of his profession at Hanover, N. H., and also commenced the delivery

of a series of lectures on anatomy and physiology at Dartmouth College. He became a professor of those two branches in 1842, and continued to hold that chair until the year 1870. In the year 1843 he was appointed lecturer on anatomy and surgery at Bowdoin College, and was professor of these branches, of education during the period from 1845 to 1857, when he gave up anatomy but continued to act as professor of surgery until 1860. Dr. Peaslee was appointed professor of physiology and general pathology, in the year 1851, at the New York Medical College, and from 1858 to 1860 he accepted the professorship of obstetrics in the same institution. He was elected professor of gynecology at Dartmouth Medical College in 1872, and at Bellevue Hospital Medical College in 1874. He practiced seventeen years in Hanover, and subsequently in New York. He published a work on Human Histology and also one on Ovariectomy. His distinguished services in his specialty and his skill as an ovariectomist are well known. Our readers may remember the friendly tribute to the memory of the late Dr. Crosby from the pen of Dr. Peaslee in a recent number of the JOURNAL,¹ and the valuable advice to the over-worked practitioner therein contained.

— The censors of the Suffolk District Medical Society will meet for the examination of candidates on February 21st.

— Dr. L. P. Yandell, Jr., has assumed the editorship of the *Louisville Medical News* in place of Dr. Galt.

— King Louis, of Bavaria, has conferred upon Hyrtl, of Vienna, the Cross of the Commander of the Order of Merit of St. Michael.

— The first number of *The Brain*, a quarterly journal of neural pathology, edited by Drs. Bucknill, Crichton Browne, Hughlings Jackson, and Ferrier, will appear on the 1st of April.

— Professor Bacelli, of Rome, asserts that percussion of the ilium may aid in the diagnosis of (1) simple ovaritis, (2) of a commencing ovarian tumor, (3) of the side of origin (right or left) of large ovarian tumors of which the early history is unknown. The *Detroit Medical Journal* for December gives further details.

— A house-maid in Philadelphia was found to have chancre of the lip. As her reputation is unquestionable, the sore was presumed to have been communicated by the instruments of a dentist.

— Prof. Sidney A. Norton has been appointed to the chair of chemistry in Starling Medical College, Columbus, Ohio, recently vacated by Professor Wormley, now professor of chemistry in the University of Pennsylvania.

— The *New York Medical Record* says that scientific circles in that city have been startled by the recent discovery that one of their most noted opticians imports ordinary commercial lenses from Paris, remounts them after the English style, and palms them off as lenses of the best makers. The fraud was discovered by an expert, who, knowing that the objectives of Vienna, Berlin, Paris, London, and America have each in the tint of the field peculiarities by which they can with tolerable certainty be identified, was led by the color of the field of the objective in question to suspect its true character.

— Dr. Roberts Bartholow has yielded the editorial chair of *The Clinic* to Dr. James G. Hyndman.

¹ September 27, 1877.

— The following, according to an exchange, is the result of the measurement of over half a million of men as regards height and nativity. The mean height of the American Indian is 67.934 inches; the American white man, 67.672; Scotch, 67.066; English, 66.575; Russian, 66.393; French, 66.277; Mexican, 66.110.

LETTER FROM LONDON.

MR. EDITOR,— I desire to send you some notes of the last of a series of lectures in the hall of the University of London, Burlington Gardens, by Professor Burdon-Sanderson, the distinguished physiologist of University College. The subject of the hour was Animal Organisms and Antiseptic Surgery. I would preface this *résumé* by noting that a large number of prominent London gentlemen and some ladies were present; among the former Tyndall, Huxley, and others; Mr. Lister was unexpectedly absent, having gone into the country for the holidays. It will not be out of place to note that Lister's antiseptic treatment is the chief topic of interest in the surgical *salon* of London, and that a few evenings ago Mr. Tyndall, Professor Sanderson, and Mr. Lister took part in the discussion of a paper read before the Royal Society.

Professor Sanderson began with an introduction of the two theories of disease engaging the discussion of to-day, namely, that of contagium vivum, and the germ theory, and remarked that the former is in the sphere of the physician and surgeon, while the latter comes more properly within the province of the surgeon. In regard to the germ theory of disease, Volkmann, of Halle, observed at the Surgical Congress of 1874 that anti-infective treatment was a pathological success, whether the germ theory were true or false. Professor Sanderson had visited Volkmann's hospital, which was an old one in the midst of the old town, and, as the lecturer remarked, was "overlooked by an ecclesiastical building." Volkman asked him if he had ever seen a dirtier hospital. "Yes," he said, "in London." Yet Volkmann believed from his experience in this old hospital that serous membranes could be opened without consequent suppuration. (In September, 1876, I sent you a condensed account of Professor Volkmann's new surgical hospital in Halle, which was then merely in projection.) The per cent. of improvement in the old hospital at Halle, in Munich, Innsbruck, and other places since the adoption of the *Lister'sche Behandlung* is much larger than that recorded in the few English hospitals in which it is used; for the per cent. of sepsis was much greater in the former before its adoption. It is opportune to observe here — and those who know their history will corroborate the statement — that many German hospitals were either old castles, military barracks, or lazarets. Bardeleben's surgical wards in Berlin are in an old military lazaret; the proper building of the University of Berlin was Prince Heinrich's palace; so, too, the University building at Erlangen, in Bavaria, was the residence of the Erzherzog of Bayreuth. If anything in architecture in Germany is calculated to deceive the American student, it is the external appearance of many of the hospitals and theatres.

The professor called attention to the allegation, which lately found its way from Strasbourg, that the discharges from wounds antiseptically dressed con-

tained living organisms, and was disposed to disbelieve the statement. He preferred not to take ground as yet against the possibility of the occurrence, but to quote Mr. Tyndall, who had remarked that such discharges may be "encumbered with infectivity, but are not encumbered with animal germs." In the physiological laboratory the question assumed a different phase, for these organisms could be produced only from parent germs to which they were like. As to the source of putrefactive germs, Professor Sanderson emphasized the probability of surgical instruments not being antiseptically clean, and looked forward to the day when the surgeon will desire surgically pure instruments as the chemist seeks chemically pure reagents. In respect of traumatic infectivity, he submitted two ruling guides of conduct: (1.) the avoidance of conditions favorable to the formation of germs; (2.) the avoidance of infective contamination.

The physiological question of the solubility of specific infection was stated to be an interesting one. Infectious material is soluble in the sense that it will pass through the finest filters. Albumen is said to be soluble, but in reality is in suspension. Nor is the condition of toxæmia a question of quantity. Germs or infective material are not to be measured by drachms or drops, but, so to speak, in infinitesimal doses. Filters of porous porcelain were here shown, which had been expressly constructed for filtering bacterian milk. The apparatus for the separation of the germs was at work, having in two hours filtered about two ounces of milk. Its construction is simple. An inverted glass funnel covered with a porous disc, hermetically attached by its edges to the funnel, contains the milk in which, as is known, bacterium is suspended. The casein of the milk passes out by means of mercurial pressure exercised through a long, bent glass tube, properly supported by a wooden frame; in this way the globules of air can be seen passing down the tube towards the mercury-cup, which stands on the floor. The resulting fluid in the funnel is highly albuminous and transparent, while the bacteria are lodged in the porous disc, which may be called the filtrate. The vacuum is much better than occurs in the ordinary stomach-pump, though far from perfect. The discs may be re-utilized, but must be recalcined for each trial. Brücke, of Vienna, discovered this method, and both he and Pasteur now use it. Another method of testing for organisms which are not discoverable by high powers of the microscope is that of Tyndall; namely, the analysis of a transmitted beam of light from a powerful source, as the oxy-hydrogen calcium light, by means of an achromatic lens, one of the surfaces of which will detect floating organisms in the fluid, as the ray flashes up at intervals, while the other surface will not.

In the month of October Professor Sanderson visited Dr. Koch, of Wallstein, Germany, a gentleman corresponding to the English country practitioner, whose observations had attracted his attention. They made experiments on animals, chiefly on mice and rabbits in splenic fever. The post-mortem appearances of splenic fever are like those of septicæmia, as shown by Bollinger in Ziemssen's *Cyclopædia*. Injections of splenic-fever blood five years old were made; in twenty-four hours the injected animal was moribund, and was then killed. The spleen was found filled with blood to impletion; this blood was loaded with long, curvilinear spores, like the bacilli of anthrax, crossing

each other like swords, and having the characteristically rounded cellular nucleus at intermediate points of each bacillus. It was stated that the best habitats of organisms are the blood of patients in relapsing fever and anthrax. Some remarkably delicate photographs on glass, of the discharge of anthrax which had been treated with healthy aqueous humor, taken by Dr. Koch were exhibited by aid of the calcium light; this humor is the best alkaline medium for the purpose; the bacillic character of germ above described was shown. The curvilinear rods, *pari passu*, grow into a felt or net-like work; then fall apart, and globular spores form in the calibre of the rod; and finally occurs a segregation of the spores, constituting the true or, perhaps better, the common bacterium. The caution was enforced that no one ought to say he has seen germs until he is familiar with the appearance and development of the splenic-fever blood germs; these exist and are real. Furthermore, vaccine virus has organisms, which Mr. Godley proved, for he cultivated them; but he was unable to reproduce them. The experiments of Heiberg, of Christiania, and of Weigert on small-pox patients were alluded to, in which not proper bacteria but dead-alive (a direct translation of Virchow's word *nekrobiosis*) organisms thrived. It is also well known that in the exudation of faucial diphtheria living micrococci exist, — that is, spheroidal bodies moving about in groups; and this aggregation is believed to be distinctive of micrococci. Diphtheria is, then, a true mycotic process. These micrococci are punctiform foci of local ulcerative processes, and develop true miliary abscesses, as in vesicular pneumonia, and ulcerative endocarditis of the mitral valves.

The following microscopic preparations were exhibited in an adjoining room, and were observed by a large number of persons.

Bacillus anthracis in blood of splenic fever of a mouse. (No. 8, Hartnack system.)

The same after twenty hours, bearing spores. (Nos. 9 and 11, immersion, Hartnack.)

Common bacteria from macerating fluid. (No. 8, Hartnack.)

Poisonous bacteria of septicæmia, two preparations, one stained, one unstained. (No. 8, Hartnack.)

Sporillus, in blood of relapsing fever. (No. 10, immersion, Hartnack.)

The staining was done with methylaniline violet, not with Hoffmann's aniline violet, ordinarily used in Germany and England. It was brought by Professor Sanderson from Breslau, where Professor Cohn found it more permanent than the other. This staining property will be a prominent element in the detection of germs; all coloring liquids will not satisfy. I remember when in Zurich with Horner, who in connection with Eberth had just completed his observations on suppurations of the cornea, that is, suppurative keratitis, ulcers, etc., with reference to the presence of bacteria, that he complained of the want of a proper coloring fluid. Hæmatoxyline is not a fast color; carmine gives no distinctive appearance to bacteria; while Ranvier's picrocarmine only made all parts of the field equally more distinct. With ordinary ammoniated carmine it was with difficulty that common bacteria and *débris* were distinguished. It is well known, however, that Horner had good reason for calling ulcerative keratitis *keratitis mycetica*, as was shown at the Heidel-

berg Congress of 1875, and his success in antiseptic treatment of these ulcers corroborates the theory. I will copy one of a few charts which were suspended during the hour, as bearing upon the subject, and will suggest that *colytic* is taken in its direct derivative sense, preventive.

TABLE I.

RELATIVE VALUE OF ANTISEPTICS. (BUCHOLTZ.)

	Colytic.	Destructive.
Chlorine,	—	2500
Thymol,	200	20
Sulphurous acid,	—	66
Salicylic acid,	66	31
Carbolic acid,	20	2.5
Alcohol,	5	0.5

Truly yours,

E. S. P.

LONDON, December 24, 1877.

COMPARATIVE MORTALITY-RATES.

	Estimated Population, July 1, 1878.	Deaths during week ending January 19, 1878.	Annual Death-Rates per 1000 living.		
			For the Week.	For the Year 1877.	Mean of ten Years, '68-77.
New York.	1,093,171			24.32	28.71
Philadelphia.	876,118	314	18.64	18.50	21.54
Brockton.	549,438	185	17.51	21.51	25.50
Chicago.	460,000	125	14.13	17.83	22.39
Boston.	375,476	126	17.45	20.10	24.34
Providence.	104,500	45	22.38	18.81	19.20
Lowell.	55,798	17	15.84	19.09	22.50
Worcester.	54,937	22	20.83	21.07	22.30
Cambridge.	53,547	23	22.33	18.69	20.83
Fall River.	53,207	21	20.53	21.35	24.96
Lynn.	35,528	12	17.57	20.42	19.67
Springfield.	33,981	10	15.31	16.04	19.77
Salem.	27,140	11	21.07	20.38	21.15

OBITUARY.—Dr. Benjamin Haskell died recently at Rockport. He was born in that town, received his education at Amherst, and took his medical degree at Bowdoin College. He began practice some forty years ago. He was at the time of his death the oldest physician and the longest in professional life on Cape Ann. His funeral was largely attended by prominent men and professional colleagues.

BOSTON SOCIETY FOR MEDICAL OBSERVATION.—At a meeting of the society to be held on Monday evening next, at eight o'clock, at its rooms, 36 Temple Place, Dr. Post will read a paper upon a Case of Cerebral Syphilis.

BOOKS AND PAMPHLETS RECEIVED.—The Obstetric Forceps, an Improvement in their Construction. By J. A. McFerran, M. D. Philadelphia. 1877.

Report of the Surgeon-General of the Navy to the Secretary of the Navy for the Year 1877. Washington: Government Printing Office. 1878.

Seventh Annual Report of the Board of Directors of the Children's Hospital of the District of Columbia. Washington. 1878.

House-Air the Cause and Promoter of Disease. By Frank Donaldson, M. D. (Maryland State Board of Health Report.) Baltimore. 1878.